

the parallel grooves and having a first and second sides, the first side being a volume residing above the meridian plane and a the second side being a volume residing below the meridian plane;

B
a lens having a substantially planar surface, a convex surface, and an optical axis, wherein said lens convex surface faces said grating concave surface, and said optical axes of said grating and said lens are substantially coaxial or parallel;

an entrance port located out of said meridian plane on said first side so that incident light is introduced to the lens at a location out of said meridian plane and on said first side; and

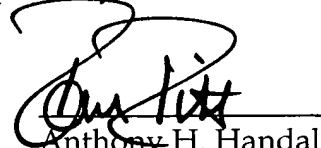
a
an exit port located out of said meridian plane on said second side for receiving one order of diffracted light without significant mixing with adjacent orders of diffracted light.

REMARKS

The amendments are made to correct at least one error in the patent and to reduce the filing fees to be paid.

Respectfully submitted,

By:


Anthony H. Handal
Reg. No. 26,275
Roger Pitt
Reg. No. 46,996

Handal & Morofsky
80 Washington Street
Norwalk CT 06854

Express Mail Label No. EL695228494

"VERSION WITH MARKINGS TO SHOW CHANGES MADE"

1. (amended) A ~~modified~~ concentric spectrograph comprising:

- a grating, an optical axis, a meridian plane, and a grooved concave surface, said meridian plane containing the grating optical axis, extending perpendicularly to the parallel grooves and having a first and second sides, the first side being a volume residing above the meridian plane and a the second side being a volume residing below the meridian plane;
- a lens having a substantially planar surface, a convex surface, and an optical axis, wherein said lens convex surface ~~is facing~~ faces said grating concave surface; and said optical axes of said grating and said lens being are substantially coaxial or parallel;
- an primary entrance port ~~being~~ located substantially out of said meridian plane toward on said first side so that incident light is introduced to the lens at a location out of said meridian plane and on said first side; and
- an primary exit port ~~being~~ located substantially out of said meridian plane toward on said second side for receiving an one order of diffracted light that maximizes throughput and minimizes astigmatism without significant mixing with adjacent orders of diffracted light.

66. (amended) A method for dispersing light comprising:

- passing polychromatic light through an entrance port located substantially on a first side of and at a perpendicular distance from a meridian plane of a concave diffraction grating;

